

AMENDMENT

Sir:

In response to the Office Action dated September 27, 1997 please consider the following:

IN THE CLAIMS

K1
129. (Added) A method comprising providing a composition having a transition temperature greater than 26°K, the composition including a rare earth or alkaline earth element, a transition metal element capable of exhibiting multivalent states and oxygen, including at least one phase that exhibits superconductivity at temperature in excess of 26°K, maintaining said composition at said temperature to exhibit said superconductivity and passing an electrical superconducting current through said composition while exhibiting said superconductivity.

pub
N⁴
130. (Added) A method comprising providing a superconducting transition metal oxide having a superconductive onset temperature greater than 26°K, maintaining said superconducting transition metal oxide being at a temperature less than said superconducting onset temperature and flowing a superconducting current therein.

131. (Added) A method comprising providing a superconducting copper oxide having a superconductive onset temperature greater than 26°K, maintaining said superconducting copper oxide at a temperature less than said superconducting onset temperature and flowing a superconducting current therein.

✓
K1
cont'd
1 pub
N4
132. (Added) A method comprising providing a superconducting oxide composition having a superconductive onset temperature greater than 26°K, maintaining said superconducting copper oxide at a temperature less than said superconducting onset temperature and flowing a superconducting current therein, said composition comprising at least one each of rare earth, an alkaline earth, and copper.

133. (Added) A method comprising providing a superconducting oxide composition having a superconductive onset temperature greater than 26°K, maintaining said superconducting copper oxide at a temperature less than said superconducting onset temperature and flowing a superconducting current therein, said composition comprising at least one each of a group IIIB element, an alkaline earth, and copper.

134. (Added) A method comprising flowing a superconducting current in a transition metal oxide having a T_c greater than 26°K.

135. (Added) A method comprising flowing a superconducting current in a copper oxide having a T_c greater than 26°K.

136(Added). A method comprising the steps of:

forming a composition of the formula $Ba_xLa_{x-5}Cu_5O_y$, wherein x is from about 0.75 to about 1 and y is the oxygen deficiency resulting from annealing said composition at temperatures from about 540°C to about 950°C and for times of about 15 minutes to about 12 hours, said composition having a metal oxide phase which exhibits a superconducting state at a critical temperature in excess of 26°K;

maintaining the temperature of said composition at a temperature less than said critical temperature to induce said superconducting state in said metal oxide phase; and

passing an electrical current through said composition while said metal oxide phase is in said superconducting state.

137. (Added) A method comprising flowing a superconducting current in a composition of matter having a T_c greater than 26°K, said composition comprising at least one each of a IIIB element, an alkaline earth, and copper oxide.

138. (Added) A method comprising flowing a superconducting current in a composition of matter having a T_c greater than 26°K, said composition comprising at least one each of a rare earth, an alkaline earth, and copper oxide.

139. (Added) A method comprising flowing a superconducting current in a composition of matter having a T_c greater than 26°K , said composition comprising at least one each of a rare earth, and copper oxide.

140. (Added) A method comprising flowing a superconducting current in a composition of matter having a T_c greater than 26°K carrying, said composition comprising at least one each of a IIIB element, and copper oxide.

141. (Added) A method comprising flowing a superconducting current in a transition metal oxide comprising a $T_c > 26^\circ\text{K}$.

142. (Added) A method comprising flowing a superconducting current in a copper oxide comprising a $TC > 26^\circ\text{K}$.

K1
concluded